

ABSTRACT

An indexing system in a database comprises plural levels, each representing one digit in a key of a data string and having an instruction for each constituent element at said represented digit of the key. The instruction includes one of: i) moving on to check a next level without specifying a record; ii) specifying one or more records and also moving on to check a next level; iii) specifying one or more records and not moving on to check a next level; iv) not specifying a record and not moving on to check a next level. A database so indexed facilitates an efficient recursive lookup on a best-pattern match basis, such as required in a telephony database for acquiring fast routing instructions based on a telephone number.